

EXHIBIT Y

1 IN THE UNITED STATES DISTRICT COURT

2 DISTRICT OF MARYLAND

3
4 IN RE MICROSOFT CORPORATION

5 ANTITRUST LITIGATION:

6 BURST.COM,

7 Plaintiff,

8 vs.

Case No. MDL DOCKET NO. 1332
JFM 02-CV-2090

9 MICROSOFT CORPORATION,

10 Defendant.

11 /

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13
14 DEPOSITION OF BRIAN VON HERZEN

15 Thursday, December 18, 2003

16 Pages 1 - 268

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19 REPORTED BY JOANNE ICHIKI, CSR #11660

1 number of employees that in fact maintain the
2 telephone network.

3 Q. So when you say "telephone system," you
4 mean employees; you mean physical buildings; you mean
5 all the telephone lines and transmission lines we've
6 been discussing? Telephone system you mean as a very
7 inclusive term?

8 A. The telephone system is broader than the
9 telephone network.

10 Q. Our discussion earlier about the telephone
11 system, was that including all of those other
12 elements?

13 A. Which discussion are you referring to?

14 Q. The discussion we have been having about
15 the elements of a telephone system, of what a
16 telephone system is.

17 A. It is certainly part of the telephone
18 system. For example, the analog to digital
19 converters are part of the telephone system.

20 Q. The reference in this sentence that I
21 quoted, "the local loop," what is the local loop?

22 A. The local loop in this quote refers to the
23 connection between a home and the central telephone
24 office.

25 Q. Is that the POTS line you referred to

1 earlier?

2 A. It's the local loop portion of the POTS
3 system.

4 Q. So POTS is more than just the local loop?

5 A. POTS is, to my recollection, stands for
6 Plain Old Telephone Service or something close to
7 that. And so I believe that refers to the service.
8 And the local loop is part of that service.

9 Q. This statement indicates that the local
10 loop is analog.

11 Do you agree with that statement?

12 MR. LEWIS: Objection. Vague. You mean
13 the statement in the paper or the statement you just
14 made?

15 MR. GARD: The statement in the paper, "The
16 only part of the telephone network that is still
17 analog is the local loop."

18 BY MR. GARD:

19 Q. Do you agree with that statement?

20 A. I agree with the statement that the only
21 part of the telephone network that is still analog is
22 the local loop between a home and the central office
23 a few miles away.

24 Q. So there are no other parts of the
25 telephone network that are analog; is that correct?

1 A. The local loop by itself does not.

2 Q. Does the local loop use circuit switching
3 in combination with anything else?

4 A. Yes.

5 Q. In combination with what?

6 A. The telephone system.

7 Q. When you say "the telephone system," are
8 you referring here to the digital telephone network?

9 A. I'm referring to the telephone system
10 utilizing circuit switching to transmit information
11 from two -- from point source to destination.

12 Q. Does that telephone system include the
13 local loop?

14 A. The telephone system includes the local
15 loop.

16 Q. So the local loop -- strike that.

17 Was it your testimony that the local loop
18 includes a POTS line?

19 A. I would put it the other way, actually.
20 The POTS line includes a local loop.

21 Q. So the local loop is a subset of what is
22 meant by POTS?

23 A. Correct.

24 Q. And the local loop is an analog
25 transmission; is that correct?

1 office.

2 Q. But it does not include the connection
3 between a central office and another central office?

4 A. I prefer to refer to those lines as
5 transmission lines.

6 Q. Does anyone refer to those as telephone
7 lines?

8 A. It may be misleading to refer to those
9 directly as telephone lines since those are commonly
10 -- telephone lines are commonly used to refer to the
11 connection between an end user and a central office.

12 The central office to central office
13 connections are commonly called trunk lines.

14 Q. Do all transmissions within the telephone
15 network use circuit switching?

16 A. Since the telephone network itself uses
17 circuit switching in a particular time division
18 multiplexing, then transmissions on that network
19 would also inherently use circuit switching.

20 Q. So does that mean when anyone speaks about
21 a transmission on a -- on the telephone network, that
22 necessarily means using circuit switching?

23 A. Yes.

24 Q. And that also necessarily means using time
25 division multiplexing?

1 A. Yes. As I've stated in my report, the
2 telephone company began to use time division
3 multiplexing to implement circuit switching and
4 create virtual connections or circuits between two
5 places.

6 Q. Is packet switching ever used on a
7 telephone line?

8 A. What is the time frame of your question?

9 Q. Ever. At any point in time, has packet
10 switching ever been used on a telephone line?

11 A. In the 2003 time frame that may be
12 possible, but not in the 1988 time frame.

13 Q. Do you have any knowledge of whether it's
14 ever been done?

15 MR. LEWIS: Vague. Objection. Vague.

16 BY MR. GARD:

17 Q. Do you have -- are you aware of whether
18 packet switching has ever been done on a telephone
19 line?

20 A. Yes.

21 Q. When? When was that done?

22 A. 2003.

23 Q. By whom?

24 A. By Internet connections that are on top of
25 a circuit switched network.

1 THE WITNESS: "Telephone line" is vague.

2 The local loop is not circuit switched.

3 BY MR. GARD:

4 Q. Is POTS circuit switched?

5 A. Plain Old Telephone Service includes the
6 circuit switching that occurs in the central office.
7 So the answer is yes.

8 Q. So the portion of POTS that operates within
9 the central office is circuit switching?

10 MR. LEWIS: Objection. Vague.

11 THE WITNESS: Central offices utilize
12 circuit switching.

13 BY MR. GARD:

14 Q. But the portion of a POTS line that is
15 within the central office uses circuit switching
16 techniques; is that correct?

17 MR. LEWIS: Objection. Vague.

18 THE WITNESS: What is the time frame of
19 your question?

20 BY MR. GARD:

21 Q. In the 1988 time frame.

22 A. In the 1988 time frame, the central offices
23 utilized circuit switching. And the POTS line
24 implementation in the central office utilized circuit
25 switching.

1 Q. When we talked earlier about the telephone
2 network, that was inclusive of both the local loop
3 and the trunk lines or transmission lines; is that
4 correct?

5 A. Yes.

6 Q. So does that then mean that the telephone
7 network has both dedicated links and circuit switched
8 links?

9 A. The telephone network, inclusive of the
10 local loop -- the local loops, utilized dedicated
11 links. And the telephone network as a whole utilized
12 circuit switching.

13 Because on a -- let's use the example of a
14 non-party line among residences -- those lines are
15 not multiplexed, and therefore, do not involve
16 circuit switching in that context.

17 Q. So the local loop portion of the telephone
18 network does not use multiplexing? I believe that
19 was your testimony; is that correct?

20 A. My testimony was that in fact in the case
21 of a party line, the situation would be different
22 than in the case of a dedicated line.

23 Q. So if the local loop were implemented as a
24 dedicated line, that would not be doing multiplexing;
25 is that correct?

1 A. As a dedicated line, as a non-party line,
2 it would not be doing multiplexing, with the
3 exception that if you have multiple telephone
4 extensions in your house, then in fact you're
5 selecting which extension it goes to. If you pick up
6 two extensions, you're using both at once and that
7 could be interpreted as a form of multiplexing.

8 Q. But it is known to have dedicated local
9 loop lines that do not use multiplexing, is that
10 correct, as of 1988?

11 A. Yes. Generally speaking, the local loop
12 was implemented using a dedicated line.

13 Q. That did not use multiplexing; is that
14 correct?

15 A. That's correct.

16 Q. Did that dedicated line in 1988 typically
17 use circuit switching techniques?

18 MR. LEWIS: I'm going to object. Vague.

19 THE WITNESS: By the "dedicated line,"
20 you're referring to the local loop dedicated line.

21 BY MR. GARD:

22 Q. Yes.

23 A. No. However, that local loop formed part
24 of the telephone system, which is a circuit switched
25 network.

1 division multiplexing. But I don't think -- I'm not
2 sure if that's your intended question.

3 Q. But it's not typically implemented using
4 time division multiplexing?

5 MR. LEWIS: Objection. Vague.

6 MR. GARD: The local loop.

7 MR. LEWIS: Still objection. Vague.

8 THE WITNESS: Are you asking about the
9 telephone company and how it implements local loops?

10 BY MR. GARD:

11 Q. That dedicated line, non-party line, local
12 loop we have been discussing, is that implemented by
13 the resident, the residential user, or is that
14 implemented by the telephone company?

15 A. The local loop is implemented by the
16 telephone company.

17 Q. So that implementation by the telephone
18 company of the local loop dedicated non-party line,
19 is that implemented using time division multiplexing?

20 A. No, it is not in general.

21 Q. Does that, therefore, mean that it does not
22 have these time slots we have been discussing in the
23 context of time division multiplexing?

24 A. You asked the question in a negative, so
25 I'm going to try to provide a complete answer --